Electronic Version
Stylesheet Version v1.1.1

Claims

[c1] A method of operating an active night vision system comprising:
generating a first oscillating signal;
generating a trigger signal having a duty cycle with a cycle start time and a cycle end time;
synchronizing said cycle end time with a pulse end time of said first oscillating signal; and
operating a light source in response to said duty cycle.

[c2] A method as in claim 1 further comprising operating a receiver in response to said duty cycle.

[c3] A method as in claim 2 wherein said light source and said receiver are activated at said cycle start time and deactivated at said cycle end time.

[c4] A method as in claim 1 wherein generating a trigger signal having a duty cycle with a cycle start time and a cycle end time is performed via a controller.

[c5] A method as in claim 1 wherein synchronizing said cycle end time with a pulse end time of said first oscillating signal is performed via a controller.

[c6] A method as in claim 1 further comprising:
generating a second oscillating signal in response to said first oscillating signal; and
synchronizing said cycle start time with a pulse start time of said second oscillating signal.

[c7] A method as in claim 1 further comprising synchronizing said cycle start time with a pulse end time of said first oscillating signal.

[c8] A method as in claim 7 wherein synchronizing said cycle start time with a pulse end time comprises synchronizing a rising edge of said duty cycle with a falling edge of said first oscillating signal.

[c9] A method as in claim 1 wherein synchronizing said cycle end time with a pulse end time comprises synchronizing a first falling edge of said duty cycle with a second falling edge of said first oscillating signal.

[c10] An active night vision system comprising:
a counter circuit receiving a first oscillating signal and generating a second oscillating signal;
a duty cycle generator generating a pre-trigger signal having a first duty cycle in response to said first oscillating signal and said second oscillating signal;
a pulse end detector detecting pulse endings of said first

oscillating signal and said second oscillating signal and generating a post- trigger signal having a second duty cycle; and

a light source controller operating a light source in response to said second duty cycle.

[c11] A system as in claim 10 further comprising a receiver operating in response to said second duty cycle.

[c12] A system as in claim 10 further comprising a receiver having an oscillator generating said first oscillating signal.

[c13] A system as in claim 12 wherein said oscillator is a horizontal oscillator.

[c14] A system as in claim 10 wherein said pre-trigger signal is partially synchronized with said first oscillating signal.

[c15] A system as in claim 10 wherein said post-trigger signal is fully synchronized with said first oscillating signal.

[c16] A system as in claim 10 wherein said second oscillating signal is in the form of an approximately 60Hz oscillating signal.

[c17] A system as in claim 10 wherein said duty cycle generator is in the form of a resistor/capacitor (RC) circuit.

[c18] A system as in claim 10 wherein said pulse end detector is in the form of a flip-flop circuit.

[c19] An active night vision system comprising:
a first counter circuit receiving a first oscillating signal and generating a second oscillating signal;
a second counter circuit generating a trigger signal having a duty cycle with a cycle start time and a cycle end time in response to said first oscillating signal and said second oscillating signal;
said second counter circuit synchronizing said cycle end time with a second pulse end time of said first oscillating signal; and
a light source controller operating a light source in response to said duty cycle.

[c20] A system as in claim 19 wherein said second counter circuit synchronizes said cycle start time with a first pulse end time of said first oscillating signal.